EFFECT OF GUIDED IMAGERY ON BLOOD PRESSURE AMONG CLIENTS WITH HYPERTENSION IN A SELECTED RURAL COMMUNITY, COIMBATORE.

REG. NO. 30091434

A Dissertation submitted to
The Tamilnadu Dr. M.G.R. Medical University,
Chennai.

In partial fulfillment of the requirement for the
Award of the Degree of

MASTER OF SCIENCE IN NURSING

2010

EFFECT OF GUIDED IMAGERY ON BLOOD PRESSURE AMONG CLIENTS WITH HYPERTENSION IN A SELECTED RURAL COMMUNITY, COIMBATORE.

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ACKNOWLEDGEMENT

I express my heartfelt thanks to honorable **Thiru. C. Soundararaj Avl.,** Managing Trustee, SNR & Sons Charitable Trust for giving me an opportunity to utilize all the facilities in this esteemed institution.

I am immensely grateful to **Prof. Seethalakshmi**, B.Sc (N)., R.N. R.M., M.N., M.Phil., (Ph.D)., Principal, College of Nursing, Sri Ramakrishna Institute of Paramedical Sciences, Coimbatore for her expert guidance and valuable suggestions throughout the study.

I extend my deep felt sincerity to **Prof. R. Ramathilagam**, M.Sc (N)., Vice Principal, College of Nursing, Sri Ramakrishna Institute of Paramedical Sciences, Coimbatore for her keen interest, enduring moral support and valuable suggestions in completing this study.

I express my deep sense of gratitude to **Prof. W. Chitra**, M.Sc (N)., for her expert guidance, valuable suggestions, encouragement and keen interest in conception, planning and execution of the study.

I express my profound gratitude to **Dr. S.L. Ravishankar,** MBBS., M.D., Professor, Department of Community Medicine, PSG Institute of Medical Sciences and Research, Coimbatore for his valuable suggestions and expert guidance throughout my study.

I express my special thanks to **Prof. S. Girijakumari,** M. Sc (N)., **Prof.Suganthi**, M. Sc (N)., **Mrs. R. Renuka,** M.Sc (N)., and **Mrs.V. Brindha**, M.Sc (N)., and **Mrs. Anusuya,** M.Sc (N)., for their moral support and valuable suggestions in completing the study.

I express my special and sincere thanks to **Dr. G. K. Sellakumar**, M.A., M.Phil., P.G.D.P.M., Ph.D., Professor, Department of Research Methodology, **Mrs.R. Ramya**, M.Sc., M. Phil., Associate Professor, Department of Biostatistics for their intelligent guidance and constant encouragement which contributed a great deal to give meaning and enrichment of the study.

I express my special gratitude to **Mrs. Shobana M.Sc (N)**, Asso. Professor for her expert guidance and valuable suggestions

I owe a profound debt of gratitude to **Dr. V. Ganesan, Ph. D.,** Former Professor & Head of Department of Psychology, Bharathiar University Coimbatore, Founder Director Indian institute of Behaviour Technology, Coimbatore for his valuable expertise guidance and training.

I extend my sincere thanks to **all clients** who participated in my study, for their cooperation and help.

I owe much to **all faculties, staff members** who have instructed and enlightened me in the field of education and rendered and all possible help with their heart and soul co-operation to achieve my target.

I am grateful to the **Librarians** of Sri Ramakrishna Institute of Paramedical Sciences for their retrieving patience and timely helping many ways to prepare the manuscript. I express my gratitude to all staff of **Computer Park**, Coimbatore for their compute and technical assistance. There cannot be anything possible by me without the affection, support and love of **my parents, family members** and **my classmates** for their prayerful support and guidance throughout the course of my studies.

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Abstract

An interventional study was undertaken to evaluate the effectiveness of guided imagery on blood pressure among hypertensive clients at Idikarai rural community, Coimbatore. Quasi experimental pretest post test control group design was used. The blood pressure was measured by using digital sphygmomanometer. Purposive sample of 80 hypertensive clients were selected for the present study. Eighty samples were randomly assigned into experimental and control group. The data were analysed with descriptive and inferential statistical method. Paired and unpaired 't' test was used to evaluate the effect of guided imagery on blood pressure. The study concluded that guided imagery is an effective intervention to alleviate blood pressure.

Effect of Guided Imagery on Blood Pressure among Clients with Hypertension in a Selected Rural Community, Coimbatore.

Health is a precious aspect of all human beings as it is an asset for an individual. The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being. Health is maintained and improved not only through the advancement and application of health sciences, but also through the efforts and intelligent life style choices of the individual and society like, exercise, diet pattern, yoga and meditation practices.

Hypertension is a chronic condition due to its role in the causation of coronary heart disease, stroke and other cardiovascular complications. It is the commonest cardiovascular disorder, posing a major public health challenge to population in socioeconomic and epidemiological transition in both developing and developed countries. A significant numbers of individuals with hypertension are unaware of their condition and treatment is frequently inadequate with diagnosed hypertension, so it is called silent killer disease. Measures are required at a population level to prevent the development of hypertension and to improve awareness, treatment and control of hypertension in the community (The Lancet, 2005).

Hypertension causes 60,000 deaths per year and is directly related to more than 250,000 deaths from stroke (The Lancet, 2005). In India the survey results shows among the top 10 leading causes of mortality, hypertension occupies the seventh place and among top 10 leading causes of morbidity hypertension occupies the fifth place (Sharma, 2010).

A large prospective Cohort study conducted (2005) the results reveals that approximately 153 million people affected with hypertension in China and leading to 1.27 million premature deaths from cardiovascular diseases. The author suggested that prevention and control of this condition should receive top public health priority in China (Hutsen, 2005).

Hypertension is a major causative factor to coronary artery disease contributed to 740,000 deaths per year, cerebrovascular diseases contributed to 150,000 deaths per year and kidney diseases are three leading cause of morbidity, mortality and medical resources utilization in the USA (Dawber, 1980).

About 74.5 million people in the United States aged 20 and older have high blood pressure. Everyone in three adults has high blood pressure. People with high blood pressure, 77.6 percent were aware of their condition, 67.9 percent were under current treatment, 44.1 percent had it under control and 55.9 percent did not have it controlled (High blood pressure statistics, 2006).

In India about 50 million people suffer from hypertension. As age advances the risk of hypertension also advances, reaching to a level upto 30%. There is steady increase in hypertension prevalence over the last 50 years. The number of cases is more in urban than in rural areas which accounts 25-30% and 10-15% respectively (Alarming Hypertension Statistics, 2009).

A survey was conducted in India to screen all persons aged 20-60 years. The Rohtak is taken to represent the urban population and village of Haryana is taken to represent the rural population in India. The prevalence of hypertension was 59.9 and

69.9 per 1000 in males and females respectively in the urban population, and 35.5 and 35.9 per 1000 in males and females respectively in the rural population (Park, 2009).

Older adults often have a rise in systolic blood pressure related to decreased vessel elasticity. Blood pressure greater than 140/ 90 mm Hg is defined as hypertension related illness (Lewis, 2009). Persons with family history of hypertension are at risk for developing hypertension. Modifiable risk factors include obesity, cigratte smoking, heavy alcohol consumption, and sodium intake. Two out of three adults in the United States are classified as overweight or obese (Manson, 2003).

Sedentary lifestyle and continued exposure to stress are also linked to hypertension (Perry, 2009). Other factors are age greater than 60 years, dislipidemia, diabetes, diets high in fat or salt and other co-behavioural factors like smoking, alcoholism (Disguiseppi, 1980). A study conducted by American society of hypertension (2000) results show women who take the birth control pill are more susceptible to heart disease and high blood pressure.

Researchers at the University of Pittsburg have shown that hypertension may shrink the size of the brain. This, in turn, may affect intellectual and cognitive functions.

The medical management of hypertension with prescription drugs was steadily improved. A class of drugs called ACE inhibitors are now often prescribed as first line treatment. These drugs replaced earlier use of diuretics and beta blockers, whose side effects often lead to non compliance or poor compliance (Patel& Marmot, 1987). In 1980,s the non pharmacological management of hypertension such as the

behavioural interventions can be effectively used. When it combined with drug therapy effective results were shown repeatedly (Agras, 1981: Crowther, 1983: Ginsberg, Viskoper, et al: 1990: Patel& Marmot, 1987). The chief interventions are exercise, weight loss programs, and relaxation techniques.

A study was conducted in Dordrecht (2009) to find out the effect of lifestyle interventions and the medication in the treatment of hypertension, the result shows that life style interventions including weight loss, sodium restriction, moderate alcohol intake and behavioural modification produced a reduction in blood pressure of 9/9 mm Hg and also after the addition of various medications, an additional reduction of 5/3 mm Hg was obtained (Elhani, 2009).

Behavioural approaches also have added advantages like improve quality of life, improves self efficacy, improve patient feeling of being in control and improve wellbeing. Overall contributed to reduce the number of morbidity and mortality (five year findings, 1970. Ginsberg, Viskoper et al., Lorig, Sobel, et al: Patel& Marmot, 1999).

An alternative or complementary approach guided imagery is now finding widespread scientific and public acceptance, and it is being used to teach psycho physiological relaxation, alleviate anxiety and depression, relieve physical and psychological symptoms, overcome health endangering habits, resolve conflicts, and help patients for surgery and tolerate procedures more comfortably(Culshaw, 2002).

Guided imagery has been shown to promote relaxation and to improve the quality of life specially useful for conditions that are made worse by stress, such as high blood pressure, pain and anxiety.

1.1. NEED FOR THE STUDY

Hypertension is a worldwide challenge because of its high prevalence in the adult population and the concominant increase in risk of stroke, myocardial infarction, congestive heart disease, sudden cardiac death. In 2005, 1 billion people in worldwide have high blood pressure and this number is expected to increase by 60 percent to a total of 1.56 billion by the year 2025(Hypertension statistics, 2005). High blood pressure killed 56, 561 people in the United States in 2006(High blood pressure statistics, 2006).

According to American Heart Association (2004), high blood pressure is implicated in many of the deaths and disabilities resulting from strokes. Strokes killed 143, 640 people in the United States in 1992. Nearly 58 million Americans have one or more forms of heart or blood vessel disease. Prolonged uncontrolled or inadequate treatment of hypertension is a major risk factor for the occurances of heart attack, stroke, kidney failure and other cardiovascular diseases.

According to the national center for health statistics there was 35 million outpatient visits for hypertension in 2002(Chery and Woodwell, 2002). In 2000, 44,916 deaths were attributed directly to hypertension and the disease burden were 118,000 in India (High Blood pressure statistics, 2000).

Behavioural therapies enhance the minds capacity to affect bodily functions and symptoms. Healing, using mind body therapy, usually begins by promoting physical and mental relaxation, and developing better ways of coping with stress. A variety of techniques may be used, including biofeedback, psychotherapy, hypnosis and guided imagery (Kozier, 2004).

Individual studies support the efficacy of imagery, relaxation training, biofeedback with relaxation training, hypnosis, and autogenic training (Hermann, 2002: Nakao, Yaro, et al., 2003: Stetter & Kupper, 2002). These results were further confirmed by two (2003) reviews of the medical literature. One study found evidence of efficacy for using mind body modalities are relaxation, imagery, hypnosis and conventional based therapy for managing hypertension (Astin & Shapiro, et al, 2003).

Guided imagery is a highly effective behavioural intervention for hypertension. It combines deep relaxation with positive self suggestion, both of which reduce blood pressure (Crowther, 1983; Taylor, Farquhar, et al, 1977). Researchers from the centers for disease control and prevention have stated that ‘‘evidence for the efficacy of certain non-pharmacologic approaches to preventing and controlling high blood pressure is strong’’ (Labarthe & Ayala, 2002).

A study conducted in 2002 reported that relaxation techniques (Autogenic training or progressive muscular relaxation, behavioural therapy or biofeed back techniques), can lower elevated blood pressure by an average of 10 mmHg and 5 mmHg diastolic (Hermann, 2002).

Imagery is said to be a relaxation technique, similar to meditation and self hypnosis, that has physical and psychological effects. Promotes claim it can relax the mind and body by decreasing heart rate, lowering blood pressure, and altering brainwaves.

A review of 46 studies that were conducted from 1966-1998 suggested that guided imagery may be helpful in managing stress, anxiety and depression and in lowering blood pressure, reducing pain and reducing side effects of chemotherapy (American Cancer Society, 2000). A recent study presented at an American Heart Association suggested that a mental relaxation have psychological benefit in reducing high blood pressure (The Hindu, 2009).

The study was to evaluate the effectiveness of an audio relaxation tool for lowering blood pressure. The intervention consisted of 12 sessions of guided imagery program. The results proved a significant reduction in systolic and diastolic blood pressure. This study provides support for the use of guided relaxation to reduce high blood pressure in older adults (Tang, 2008).

The community health nurse is an ideal care provider at the primary and secondary and tertiary prevention level, as well as disease management in the face of prevalent hypertension in India and developing countries. The community health nurse have an important role in helping clients to accept, understand and adhere to a therapeutic plan of self care. She has major role in the secondary prevention is to identify and assess and earlier stage, control high blood pressure and helping the clients to overcome hypertensive consequences. To help the clients, the nurse must understand the risk factors, management and consequences of hypertension. Guided

imagery is effective in resolving complications of hypertension. Hence, the researcher tends to find out the effectiveness of guided imagery in reducing blood pressure among hypertensive clients.

1.2. STATEMENT OF THE PROBLEM

EFFECT OF GUIDED IMAGERY ON BLOOD PRESSURE AMONG CLIENTS WITH HYPERTENSION IN A SELECTED RURAL COMMUNITY, COIMBATORE.

1.3. OBJECTIVES

1.3.1. To assess the level of blood pressure among hypertensive clients.

1.3.2. To administer guided imagery for hypertensive clients.

1.3.3. To evaluate the effect of guided imagery among hypertensive clients.

1.4. OPERATIONAL DEFINITION

1.4.1. Effect

The result of guided imagery on blood pressure level.

1.4.2. Guided Imagery

A client is guided in imagining a relaxing scene or series of experiences is given in duration of 20 minutes for the study period of 12 sessions.

1.4.3. Hypertensive Clients

Client’s with hypertension residing at Idikarai village.

1.5. CONCEPTUAL FRAMEWORK

The conceptual framework used for this study is based on general system model approach. General system theory serves as a model for viewing man as interacting with environment. It was developed by Bertalanffy (1968) and modified by J.W. Kenny and named as a open system is made up of separate components. The components are interrelated and share a common purpose to form a whole. An open system, such as human organism or processes like the nursing process, interacts with the environment, exchanging information between the system and the environment.

The main concept of general system theory is input, throughput, output and feedback.

Input

It refers to any form of information, energy or material that enters into system through boundary. In this study researcher collected baseline data, health history and measured the level of blood pressure by using digital sphygmomanometer.

Throughput

It refers to the process where by its transforms, creates and organize. Researcher in this study administered the guided imagery in the duration of 20 minutes for the period of 12 sessions to the experimental group.

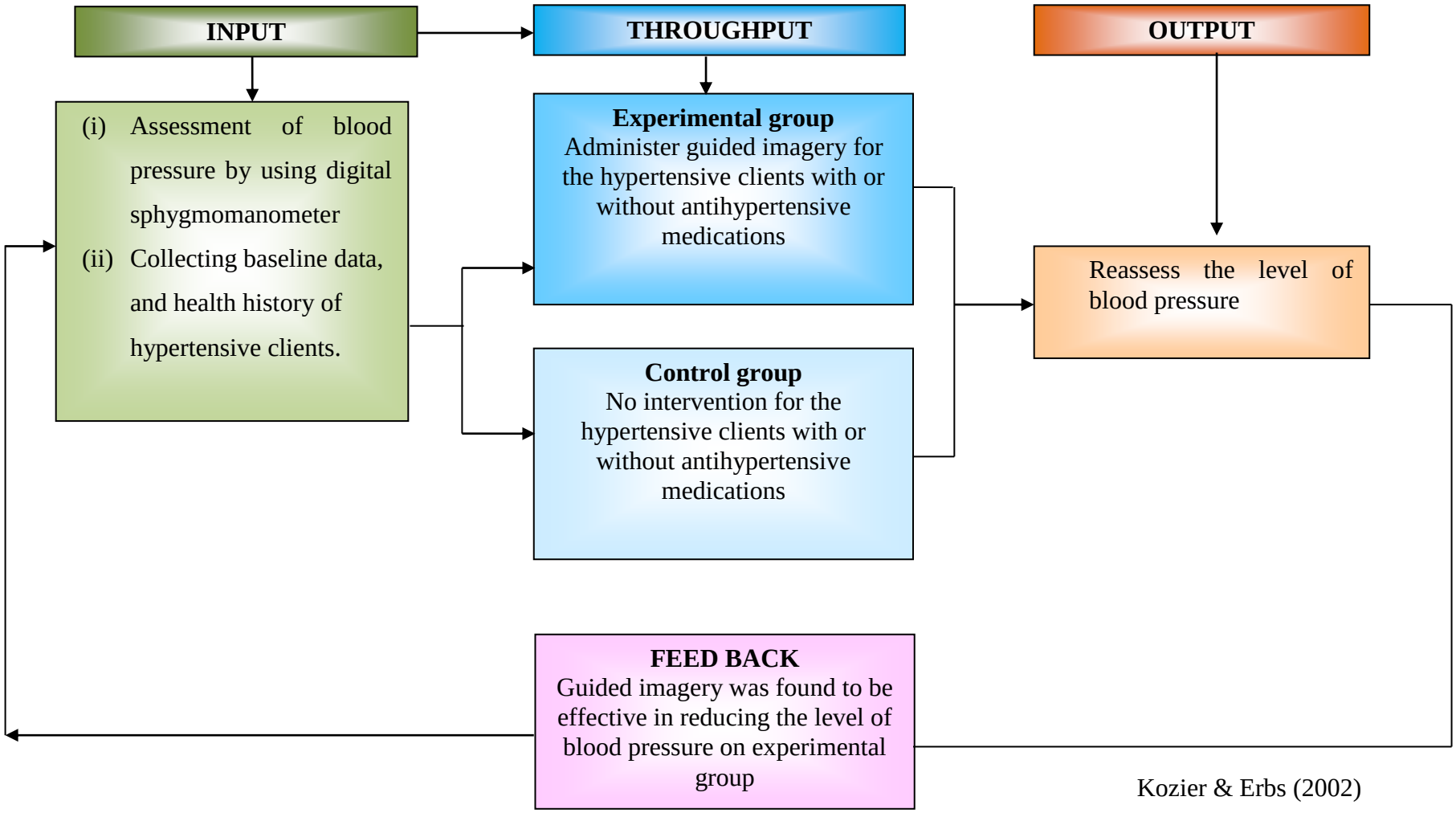
Output

It refers to energy, information or material as a result of throughput. In this study output expected is change in level of blood pressure in experimental group.

Feedback

Compare the level of blood pressure in experimental and control group respectively.

FIG 1.1.
MODIFIED CONCEPTUAL FRAMEWORK BASED ON GENERAL SYSTEM THEORY BY LUDWIG VON BERTALANFFY (1968)



Kozier & Erbs (2002)

1.6. PROJECTED OUTCOME

Administration of guided imagery among hypertensive clients helps to reduce blood pressure level.

LITERATURE REVIEW

Literature review is an essential component for the researcher for a greater understanding of the research problem and its major aspects. It provides the investigator with an opportunity to evaluate different approaches to obtain the most current facts, and selection or development of the theoretical or methodological approaches to the problem.

The literature review arranged in the followed sections

2.1. Literatures related to Hypertension.

2.2. Literatures related to Guided imagery

2.3. Literatures related to Guided imagery on blood pressure level.

2.1. LITERATURES RELATED TO HYPERTENSION

Hypertension is defined as persistent elevation of the systolic blood pressure at the level of 140 mmHg or higher and diastolic blood pressure at the level of 90 mmHg or higher (Black, 2009).

Hypertension is prevalent in developing as well as in developed countries. There are approximately 970 million people affected by hypertension worldwide. which is estimated to increase to 1.56 million individuals by 2025. That translates to about 1 out of every 4 adults being affected with hypertension. Prolonged uncontrolled or inadequate treatment of hypertension is a major risk factor for the occurrences of heart attack, stroke, kidney failure and other cardiovascular diseases (Hypertension Statistics, 2005).

An adult blood pressure tends to rise with advancing age. The optimal blood pressure for a healthy, middle age adult is less than 120/80 mmHg (National High Blood Pressure Education (NHBPEP, 2003).

The study results shown that an increased age is associated with significant increase in the prevalence of hypertension and especially of systolic hypertension after age 60 years. Increased obesity between age 30-50 years is associated with significant increase in diastolic blood pressure (Anderson, 1999).

A sedentary life style is a major risk factor for heart and blood vessel (cardiovascular) disease. People who are less active and less physically fit have a 30% - 50% greater frequency of hypertension than their more active people (Makoff, 2008).

The noxious effects of smoking are related to sympathetic nervous over activity, which increase myocardial oxygen consumption through a rise in blood pressure, heart rate and myocardial contractility. The incidence of hypertension is increased among those who smoke 15 or more cigarettes per day, and the coexistence of hypertension and smoking decreases left ventricular function in asymptomatic people (Kaplan, 2008).

It is a worldwide challenge because of its prevalence in the adult population and the concomitant increase in risk of stroke, myocardial infarction, sudden cardiac death and end stage renal disease. Many studies have shown that risk factors for hypertension include older age, female gender, smoking, alcohol consumption, unemployment, low education level, stress, family history, insufficient physical

activities, bad dietary habits, obesity, elevated total cholesterol and diabetes (Aslantas, 2008).

Studies are supporting that there is correlation between the development of hypertension and psychological factors. Researchers suggest that psychological aspects predispose to hypertension by altering central nervous system control of baroreceptors function, opioid activity and neurotransmitter levels (Semplicini, 2009).

An elevation of the systolic and diastolic blood pressure increases the risk of developing heart (Cardiac) disease, kidney disease, hardening of the arteries (atherosclerosis or arteriosclerosis), eye damage, and stroke (Brain damage). These complications of hypertension are often referred to as end-organ damage to these organs is the end result of chronic high blood pressure (John, Cunha & Marks, 2010).

2.2. LITERATURES RELATED TO GUIDED IMAGERY

Guided imagery has been effective in many areas for the mind, body and spirit by lowering cholesterol, reducing blood pressure and lessening the adverse effects of chemotherapy etc (Hartford Hospital, 2002).

Guided imagery is a technique in which a person imagines pictures, sounds, smells, and other sensations associated with reaching a goal. Imagining being in a certain environment or situation can activate the senses, producing a physical or psychological effect. studies have shown that practicing guided imagery may able to, temporarily increase numbers of immune system cells to keep the rest of your body healthy, help reduce feelings of depression, increase feelings of well-being (Mayo clinic, 2008).

Guided imagery is considered a complementary therapy that works well with traditional treatments. Guided imagery can reduce stress, anxiety, enhance personal awareness, and improve psychological coping skills (The Cancer Section of the Medical Librarian Association, 2004).

The value of imagery is that imagery can diagnose a problem, provide options for change, and even promote healing and personal empowerment. Its primary purpose is to allow the body to relax, healing the physical and emotional aspects of person (Charles& Leviton, 2000).

Imagery is said to be a relaxation techniques, similar to meditation and self hypnosis that has physical and psychological effects. Promotes claim it can relax the mind and body by decreasing heart rate, lowering blood pressure, and altering brain waves (Rose, 2010).

Guided imagery significantly improved the overall quality of life for the participants, by reducing symptoms such as pain, improving their immune response which improved their recovery rate and shortened the length of time of their illness, and improved their self esteem. The relaxation response brings your system back into balance, deepening your breathing, reducing stress hormones, slowing down your heart rate and blood pressure, and relaxing your muscles (Segal, 2008).

Over the past 25 years, the effectiveness of guided imagery has been increasingly established by research findings that demonstrate its positive impact on health, creativity and performance. Even 10 minutes of imagery can reduce blood pressure, lower cholesterol and glucose levels in the blood, and heighten short term

immune cell activity. The report says all along in their belief of employing images in the brain to enliven the heart and body. Guided imagery is helping patients to use the full range of the bodys healing capacity (Naperstek, 2000).

A study was conducted to examine the effects of three relaxation therapies for the reduction of high blood pressure. Subjects were randomly assigned to three groups are stretch relaxation, progressive muscle relaxation and cognitive imagery relaxation. After 30 days the follow up session results revealed that mean reduction in systolic, diastolic blood pressure and heart rate for all relaxation therapies (Yung, 2001).

There are hundreds of research studies documenting the effectiveness of mind body healing techniques. The study conducted to examine the effects of mind body healing therapies that have both positive and negative emotions influence peoples susceptibility to infection among people with higher levels of stress or positive moods (Speigal, 2000).

Repeatedly studies prove that mind body healing therapies, increase energy levels, promote relaxing brainwave activity, lowers blood pressure, lowers pulse rate, enhances immune system function, enhances the sense of wellbeing , helps to treat heart disease, reduces cardiac events and deaths and helps recovery (Selye, 2006).

According to the Mayo Clinic health letter, Aristotle and Hippocrates had it right all along in their belief of employing images in the brain to enliven the heart and body. Today, guided imagery is helpful hence patients use the full range of the body's healing capacity (Mayo Clinic, 2008).

Another study conducted to examine the effect of body mind therapies as a treatment of hypertension. The effect of those therapies is clinically significant in reducing blood pressure level (Ali, 2007).

A study was conducted to examine the effect of guided imagery the participants who spent 5 minutes a day practicing a guided meditation exercise reported significantly reduction in stress levels and enhanced feelings of wellbeing (Goldstain, 2005).

Another study was conducted among hypertensive clients to examine the effects of the most popular mind body therapies (Meditation, Yoga, Imagery) on systolic and diastolic blood pressure level. Mind body therapies significantly reduced systolic and diastolic blood pressure by a mean 11.52 mmHg and diastolic blood pressure by 6.83 mmHg. The review shows that there is some high quality scientific literature supporting the use of mind body therapies as a treatment for hypertension, and the magnitude of effect is clinically significant.

2.3. LITERATURES RELATED TO GUIDED IMAGERY ON BLOOD PRESSURE

The effect of guided vivid imagery sends a message to the emotional control center of the brain. From there the message is passed along to the endocrine, immune and autonomic nervous system. These systems influence a wide range of bodily functions, including heart rate, breathing rates and blood pressure (Yung, 2001).

A study suggest that practicing a guided imagery program once daily for 20 minutes results in keep positive mood, good health and high ability of vividness. The

subjects relaxed their mind and body, thereby reducing stress and maintaining their health. The study concluded that regular daily practice of guided imagery program have a possibility to conform benefits in reducing stress and improving health (Wantanabe, 2005).

In a 1997 study at the University of Miami, researchers found that guided imagery helped to elevate the mood and decrease stress. The participants rated their moods before and after practicing guided imagery and had their blood levels of the stress hormone cortisol measured. The subjects who used guided imagery reported significant decrease in depression, fatigue, and total mood disturbance are measured significant decrease in cortisol, as compared to the control group.

The research study conducted among 28 health care employees working in healthcare settings. Four guided imagery sessions, one per week on the same day of the week was administered. Study results showed a mean difference between pre and post systolic blood pressure as 10.5000. The difference of pre and post test stress level for guided imagery session revealed a mean of 2.774464. Data results confirmed that the physiological response to guided imagery is evident with healthcare employees (Kruschke, 2008).

The research study conducted on one hundred and four patients undergoing open heart surgery were prospectively randomized to receive either complementary therapy (preoperative guided imagery training with gentle touch or light massage and post operative music with gentle touch or light massage and guided imagery). Results have shown a decrease in heart rate and systolic pressure in the complementary therapies.

Another study conducted to investigate the effect of guided imagery among 42 university students. Participants were offered guided imagery compact disks and encouraged to practice daily. Results show that there was a significant reduction in diastolic blood pressure level (Kingston, 2006).

A study conducted among 28 healthy adults guided imagery and music sessions given for 3 week intervention. Results shown significant decrease between pre and post session depression, fatigue, and total mood disturbance and had significant decreases in cortisol level by follow up (Mckinney, 1997).

A study was conducted among 14 older adults. The intervention consisted of 12 sessions of a guided relaxation program. Comparing pre and post parameters for all sessions, the intervention resulted in a statistically significant reduction in systolic pressure and diastolic pressure. The 12 minute relaxation audio program can be used for high blood pressure prevention or in conjunction with antihypertensive medications for blood pressure management (Tang, 2008).

METHODOLOGY

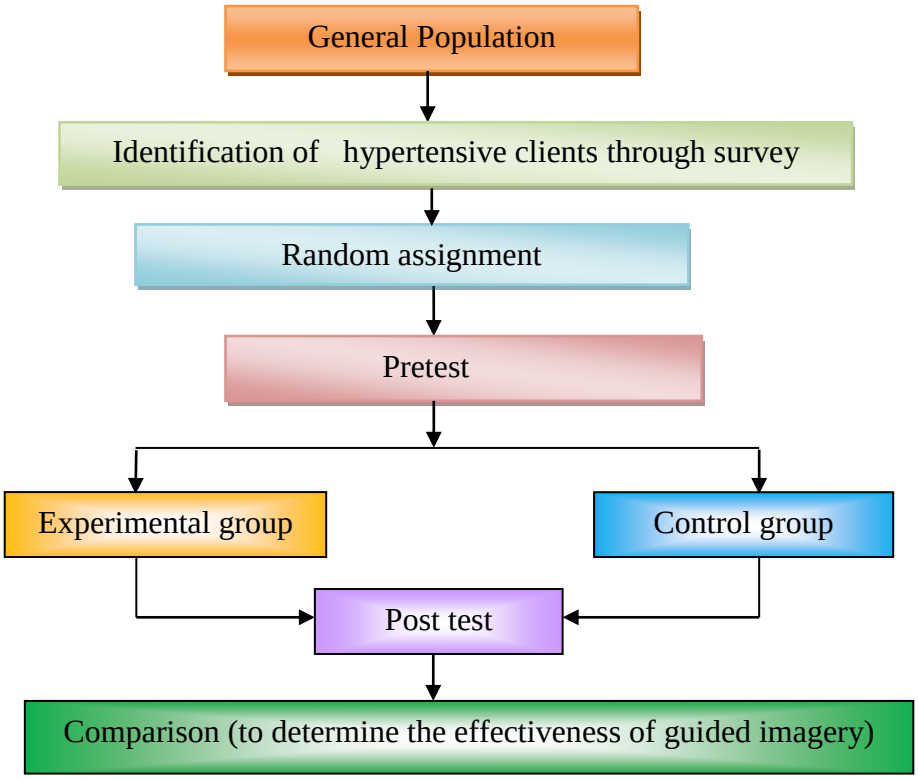
The present study was designed to assess the effectiveness of guided imagery among hypertensive clients. This chapter deals with the description of the research approach, research design, setting, population, sample and sampling technique, development and description of tools, procedure for data collection and plan for data analysis.

3.1. RESEARCH APPROACH

The present study is aimed at administering guided imagery among hypertensive clients and determining its effectiveness. Hence, an evaluative research approach has been used for the study.

3.2. RESEARCH DESIGN

The research design used for the present study was quasi experimental -pretest posttest control group design.



3.3 SETTING

The study was conducted in Idikarai village, Coimbatore. It is a rural community adopted by college of Nursing, SRIPMS which is 12 kms from the College of Nursing. In Idikarai the total population is 7065. Most of the people residing in this area are working in textile companies. People were seeking health facilities from the subcentre located at Idikarai which is functioning under the Vellakinaru Primary Health Centre.

3.4 POPULATION

The target population was clients with known hypertension.

3.5. CRITERIA FOR SAMPLE SELECTION

3.5.1 Inclusion criteria

Samples with the following criteria were included in the study:

1. Clients with hypertension who are 30 and above.
2. Those with adequate hearing acuity to hear verbal audio taped instructions.
3. Those who can understand Tamil.

3.5.2. Exclusion criteria

The following samples were excluded from the study,

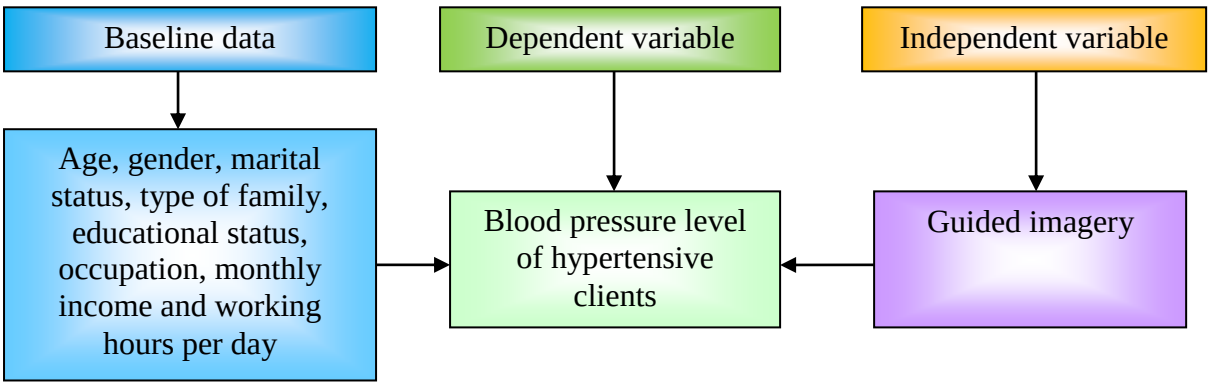
Hypertensive clients experiencing posttraumatic stress disorder or sensory deprivation.

3.6. SAMPLING

Purposive sample of eighty with known hypertensive clients were selected for the study. The selected samples were randomly assigned into experimental and control group.

3.7. VARIABLES OF THE STUDY

The independent variable in the present study was guided imagery and dependent variable is the blood pressure level of the hypertensive clients.



3.8. MATERIALS

The following materials were used for the data collection:

1. Questionnaire to assess the health history of hypertensive clients.
2. Guided imagery.

3.8.1. Questionnaire to assess the health history. It consist of 3 sections,

3.8.1.1. Baseline data

3.8.1.2. Health history

3.8.1.3. Blood pressure monitoring chart

3.8.2. Guided imagery

3.8.1.1. Baseline Data

Baseline data consists of age, gender, marital status, type of family, educational status, occupation, nature of work and working hours per day.

3.8.1.2. Health History

Health history consists of height, weight, body mass index, family history, history of taking any antihypertensive medications, personal habits like smoking, betal nut, tobacco/pan chewing, alcohol drinking, exercise, diet, history of oral contraceptive drugs and leisure activities.

3.8.1.3. Blood Pressure Monitoring Chart

The blood pressure monitoring chart consist of three columns, the first column is the number of days, second column the level of blood pressure measured before guided imagery and third column is the level of blood pressure measured after guided imagery.

3.8.2. Guided imagery

1. Find quiet comfortable place and ask the client to sit in comfortable position.
2. Instruct the person to follow the instructions while practicing this relaxation technique.
3. Take a few slow and deep breaths to centre the attention
4. Deeply exhale and feel all the muscles are getting in relaxed state and all the tension is flowing out of his body.
5. Instruct them to repeat the exercise for six times.
6. Ask the person to gently close the eyes.

7. In this relaxed state the client should hear the audio tapped verbal instructions and imaging themselves in the sceneries as described in the script by using all of his senses.
8. Remain within your scene, touring its various aspects for 20 minutes.
9. After that instruct them to slowly open the eyes and then rejoin the world.

3.9. VALIDITY OF THE TOOLS

The tool was developed by the present researcher and was been validated by five experts in the field. Standardized instruments were used to measure biophysical variable.

3.10. HYPOTHESES

H_1: There is no significant difference in the level of blood pressure between experimental group and control group before guided imagery.

H_2: There is a significant difference in the level of blood pressure in the experimental group before and after guided imagery.

H_3 : There is no significant difference in the level of blood pressure in the control group before and after guided imagery.

H_4 : There is a significant difference in the level of blood pressure in the experimental group and control group after guided imagery.

3.11. PILOT STUDY

Pilot study was conducted to find out the feasibility, practicability, validity of the study. The study was conducted among hypertensive clients residing at Karuppukal Thottam and Dhanalakshmi Nagar for a period of ten days. After the initial survey, purposive sample of 20 samples were selected for the study. After that

20 samples were randomly assigned into experimental and control group. The baseline data, health history, and blood pressure were assessed for both experimental and control group. Guided imagery was provided to experimental group in the period of ten days and blood pressure was measured before and after giving intervention by using Digital sphygmomanometer. And for control group without any intervention blood pressure was measured. The data collected was carefully, analysed and there was a significant reduction of blood pressure among hypertensive clients in the experimental group which was found feasible.

3.12. MAIN STUDY

The main study was conducted to meet the objectives of present study. Data was collected for a period of 30 days. The study was conducted in Idigarai, rural community of Coimbatore. Initially in the first two days 86 hypertensive clients were identified through survey. Purposive sampling of eighty was selected for the study. After that 80 samples were randomly assigned into experimental group and control group. The baseline data, health history and blood pressure were assessed for both experimental and control group.

Experimental group practiced 20 minutes of guided imagery for 12 sessions and the researcher assessed the blood pressure level before and after administering guided imagery. Where as in control group there was no practice of guided imagery but the blood pressure were measured for 12 sessions.

3.13. TECHNIQUES OF DATA ANALYSIS

Appropriate statistical tools such as descriptive statistics and inferential statistics were applied to analyse the data. Paired ‘t’ test was used to find out the significant difference between before and after administering guided imagery and the unpaired ‘t’ test was adopted to findout the significant difference between experimental and control group.

DATA ANALYSIS AND INTERPRETATION

The study was intended to find out the effect of guided imagery on reducing blood pressure among hypertensive clients. Data was collected from a sample of 80 hypertensive clients. The findings were tabulated analyzed and interpreted in this chapter. The data was computed using descriptive and inferential statistics.

SECTION – I

4.1. BASELINE DATA PRESENTATION

The baseline data of hypertensive clients were collected in terms of age, gender, marital status, type of family, educational status, occupation, income and working hours per day. The data were presented in the form of tables and graphs.

TABLE 4.1.
DISTRIBUTION OF RESPONDENTS BASED ON BASELINE DATA
(N=80)

Demographic variables	Experimental group		Control group	
	No. of Respondents	Percentage (%)	No. of Respondents	Percentage (%)
Age in years				
31 – 40	1	2	4	10
41 -50	4	10	11	27
51 – 60	14	35	12	30
61 – 70	15	38	10	25
> 71 years	6	15	3	8
Gender				
Male	6	15	9	22
Female	34	85	31	78
Marital Status				
Married	40	100	39	98
Unmarried	-	-	1	2
Type of family				
Nuclear	28	70	26	65
Joint	12	30	14	35
Educational Status				
Illiterate	20	50	25	62
Primary education	10	25	7	18
Secondary Education	8	20	8	20
Degree	2	5	-	-
Occupation				
Housewives	35	87	27	67
Coolie	3	8	8	20
Business	2	5	5	13
Monthly Income (in Rs.)				
None	35	87	27	67
< 1000	-	-	2	5
1001 – 3000	-	-	5	13
3001 – 5000	2	5	1	2
>5000	3	8	5	13

The above mentioned table reveals that in experimental group around 73 percent of them and in control group, 55 percent of them were belong to the age groups of 51-70 years. The gender distribution reveals that in experimental group, 85 percent of them were females and 15 percent of were males. In control group, 78 percent of them were females and 22 percent of them were males and 100 percent of them from experimental group and 98 percent of them from control group were married.

The type of family distribution reveals 70 percent of them from experimental group and 65 percent from control group were from nuclear families. 50 percent from experimental group and 62 percent from control group were illiterate and 20 percent from experimental and control group had secondary education. 87 percent of them from experimental group and 67 percent from control group were housewives.

FIG. 4.1.
DISTRIBUTION OF RESPONDANTS BASED ON AGE

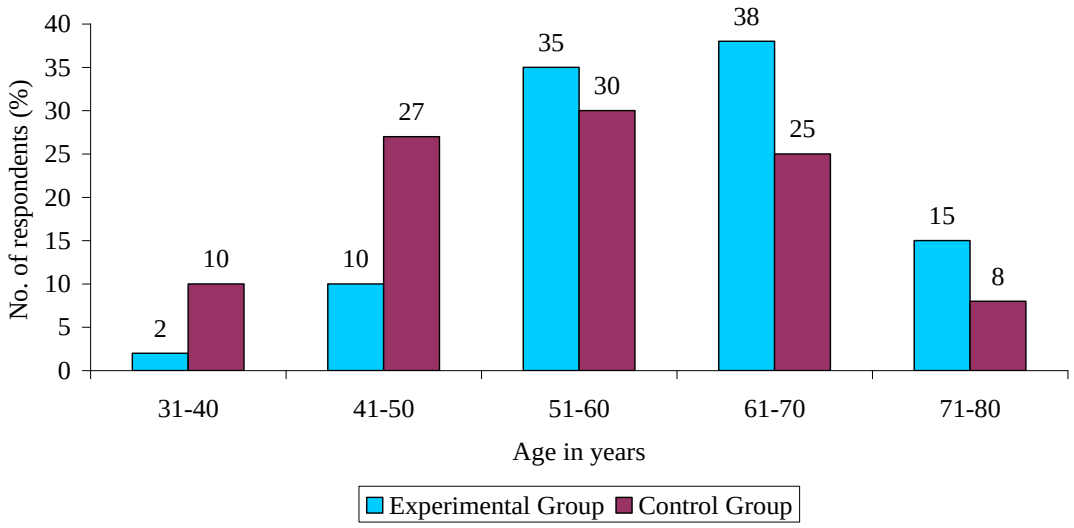
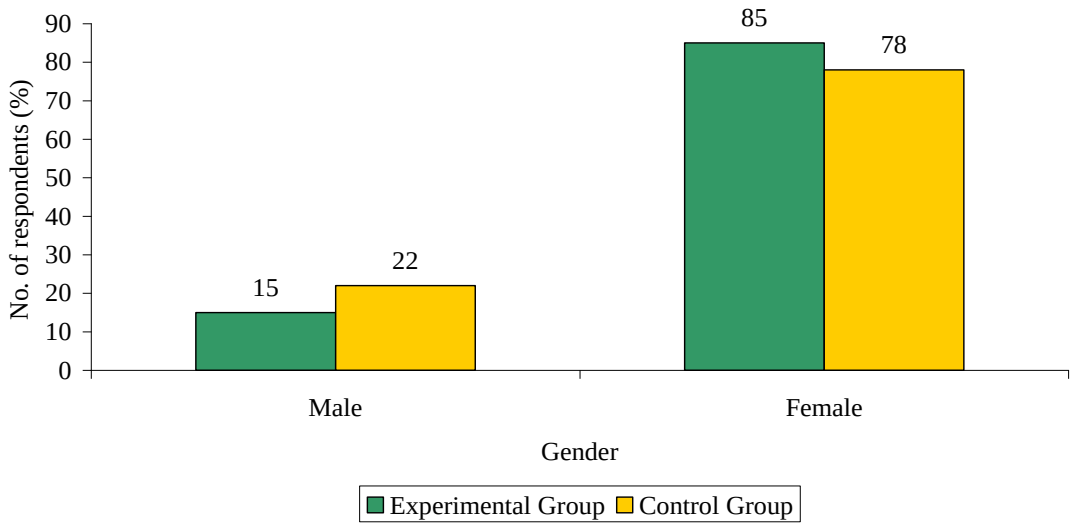


FIG. 4.2.
DISTRIBUTION OF RESPONDANTS BASED ON GENDER



SECTION- II

4.2. DATA PRESENTATION ON HEALTH HISTORY

The health history of hypertensive clients were collected in terms of body mass index, family history of hypertension, health habits like smoking, alcoholism, food habits and history of oral contraceptives.

TABLE 4.2.
DISTRIBUTION ON HEALTH HISTORY

(N=80)

Health History	Experimental group		Control group	
	No. of Respondents	Percentage (%)	No. of Respondents	Percentage (%)
Body Mass Index				
<18.50	2	5	2	5
18.51-24.99	30	75	28	70
>25	8	20	10	25
Health History				
Family history of hypertension	2	5	-	-
No family history	38	95	40	100
History of taking antihypertensive drugs	29	73	27	67
Not taking drugs	11	27	13	33
Health habits				
Smoking				
Smokers	7	18	10	25
Non Smokers	33	82	30	75
Alcoholism				
Alcoholic	1	2	3	8
Non Alcoholic	39	98	37	92

Health History	Experimental group		Control group	
	No. of Respondents	Percentage (%)	No. of Respondents	Percentage (%)
Food Habits				
Non vegetarian	39	98	40	100
Vegetarian	1	2	-	-
History of oral contraceptive drugs				
History of taking oral contraceptive drugs	-	-	2	5
No history of oral contraceptive drugs	40	100	38	95

The above table reveals that more than 70 percent of respondents in both the groups had normal body weight. 95 percent from experimental group and 100 percent from control group had no family history of hypertension. 73 percent from experimental group and 67 percent from control group have the history of taking antihypertensive drugs. The health distribution reveals that 18 percent from experimental group and 25 percent from control group were smokers. 2 percent from experimental group and 8 percent from control group were alcoholics. The diet distribution reveals that 98 percent from experimental group and 100 percent from control group were non vegetarians. 100 percent from experimental group and 95 percent from control group were not having history of taking contraceptive drugs.

FIG. 4.3.
DISTRIBUTION OF RESPONDENTS BASED ON BODY MASS INDEX

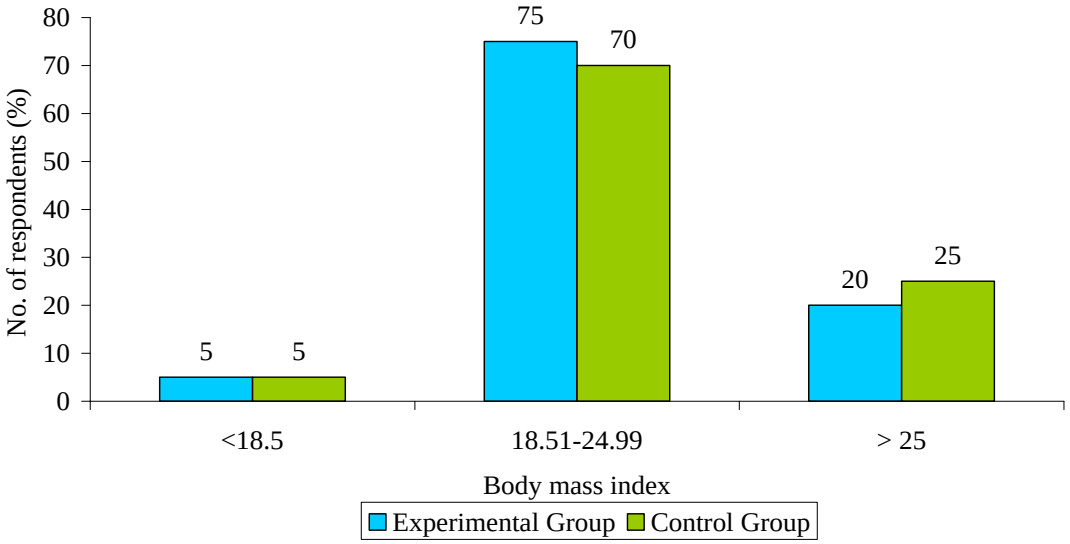
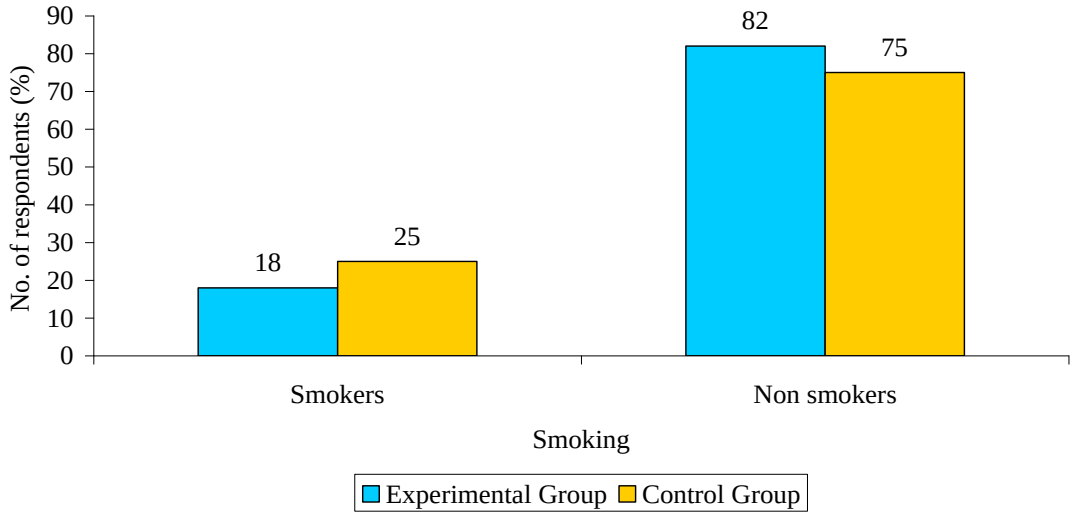


FIG. 4.4.
DISTRIBUTION OF RESPONDENTS BASED ON SMOKING



SECTION- III

TABLE - 4.3.
ANALYSIS ON LEVEL OF BLOOD PRESSURE BETWEEN EXPERIMENTAL AND CONTROL GROUP BEFORE GUIDED IMAGERY

Hypertensive clients the level of blood pressure were analysed and interpreted to findout the effect of guided imagery. 't' test for unpaired samples were used to analyse the mean difference of experimental and control group.

(N=80)

Blood pressure	Experimental group		Control group		't' value
	Mean	SD	Mean	SD	
Systolic blood pressure	147.2	16.44	144.7	17.51	0.6499
Diastolic blood pressure	84.3	10.84	84.8	12.84	0.1857

The mean scores of both systolic and diastolic blood pressure were compared in between experimental and control group before the intervention.

The mean blood pressure of experimental and control group are found to be similar, with mild variations. Calculated't' value for systolic blood pressure was 0.6499 and diastolic blood pressure was 0.1857 are less than the table value. Thus the null hypotheses, **"There is no significant difference in the level of blood pressure between experimental and control group before guided imagery"** is accepted**.** Hence the two groups were found to be homogenous before guided imagery.

TABLE 4.4.
ANALYSIS ON LEVEL OF BLOOD PRESSURE IN THE EXPERIMENTAL GROUP BEFORE AND AFTER GUIDED IMAGERY

(N=80)

Blood pressure	Before		After		Mean difference	't'
	Mean	SD	Mean	SD		
Systolic blood pressure	147.2	16.44	125.1	14.86	22.1	24.5381**
Diastolic blood pressure	84.3	10.84	77.25	11.06	7.05	21.1426**

** significant at 0.01 level

The data presented in the table indicates that the mean pretest of systolic blood pressure was 147.2 mm Hg and it reduces to 125.1 mm Hg during post test. This shows an average decrease of systolic blood pressure was 22.1. The calculated 't' value of pretest and post test of systolic blood pressure was 24.5381, is greater than the table value.

The mean pretest of diastolic blood pressure was 84.3 mm Hg and it reduces to 77.25 mm Hg during post test. This shows average decrease of diastolic blood pressure was 7.05. The 't' value of pretest and post test of diastolic blood pressure was 21.1426 is greater than the table value. This reveals **"There is a significant difference found in experimental group before and after guided imagery".**

TABLE 4.5.
ANALYSIS ON LEVEL OF BLOOD PRESSURE IN THE CONTROL GROUP BEFORE AND AFTER GUIDED IMAGERY

(N=80)

Control group	Before		After		Mean difference	't'
	Mean (mmHg)	SD	Mean (mmHg)	SD		
Systolic blood pressure	144.7	17.51	141.5	17.45	3.2	13.5101**
Diastolic blood pressure	84.8	12.84	82.9	13.04	1.9	15.9606**

** significant at 0.01 level

The mean pretest systolic blood pressure was 144.7 mm Hg and it reduces to 141.5 mm Hg during post test. This shows average decrease of systolic blood pressure of 3.2. The 't' value of pretest and post test of systolic blood pressure was 13.5101is greater than the table value.

The mean pretest diastolic blood pressure was 84.8 mm Hg and it reduces to 82.9 mm Hg during post test. This shows average decrease of diastolic blood pressure of 1.9. The t value of pretest post test diastolic blood pressure was 15.9606 is greater than the table value. This reveals that **"There is a significant difference found in control group before and after intervention"**.

TABLE 4.6.
ANALYSIS ON LEVEL OF BLOOD PRESSURE BETWEEN EXPERIMENTAL GROUP AND CONTROL GROUP AFTER GUIDED IMAGERY

(N=80)

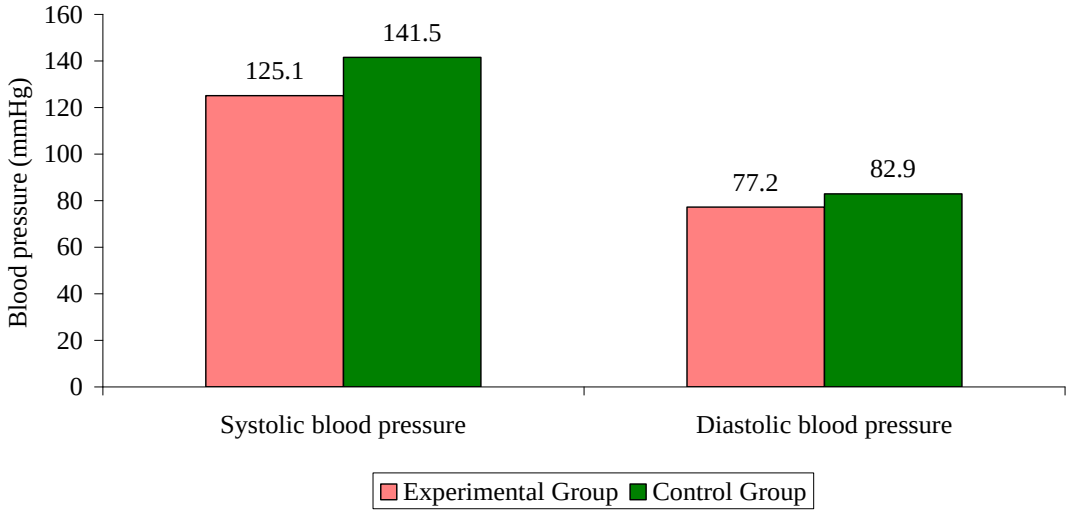
Blood pressure	Experimental group		Control group		't' value
	Mean	SD	Mean	SD	
Systolic blood pressure	125.1	14.86	141.5	17.47	4.4636
Diastolic blood pressure	77.2	11.06	82.9	13.04	2.0625

The above table reveals the mean pretest of systolic blood pressure of experimental group was 125.1 mm Hg and control group was 141.5 mm Hg. The' t' value of post test systolic blood pressure was 4.46 is greater than table value.

The mean post test of diastolic blood pressure of experimental group was 77.2 mm Hg and control group was 82.9 mm Hg. The 't' value of post test diastolic blood pressure was 2.06 is greater than table value.

This reveals a significant difference in systolic and diastolic blood pressure between experimental and control group before and after guided imagery. Though there is a difference observed in the control group which is less than the value of experimental group. This result strengthens the interventional effect in the experimental group.

FIG. 4.5.
COMPARISON OF BLOOD PRESSURE



RESULTS AND DISCUSSION

The present chapter reveals that results and discussion in detail. The analysed data is being discussed under various sections. It deals about baseline data, health history and the comparison of blood pressure before and after the therapy of guided imagery.

5.1. FINDINGS RELATED TO BASELINE DATA OF THE RESPONDENTS

In the present study, 40 respondents in experimental group and 40 respondents in the control group were selected. Table 4.1 reveals that in experimental group 35 percent of the respondents were found between the age of 51-60 years and 38 percent respondents were found between the age of 61-70 years but in control group 27 percent respondents were between 41-50 years of age, 30 percent of the respondents were between 51-60 years of age and 25 percent of respondents were between the age group of 61-70 years. This findings goes in line with the study findings of Anderson (1999) reports that increased age is associated with a significant increase in the prevalence of hypertension and especially of systolic hypertension after 50 years.

Among gender 85 percent respondents of experimental group and 78 percent of respondents of control group were females. And 15 percent respondents from experimental group and 22 percent of respondents from control group were males. Based on marital status 100 percent of the respondents of experimental group and 98 percent of respondents from control group were married. In respect to status of type of family, 70 percent of the respondents from experimental group and 65 percent of respondents from control group belonged to nuclear families. And 30 percent of respondents from experimental group and 35 percent of respondents from control

group were belonged to joint families. About educational status, 50 percent of the respondents were illiterate and 25 percent of respondents had primary education and 20 percent of respondents had secondary education in experimental group and where as in control group 62 percent of respondents were illiterate and 20 percent of respondents had secondary education.

Based on the occupation majority of the respondents from experimental group and control group were housewives that were 87 percent and 67 percent respectively. And 8 percent of respondents were coolie workers and 5 percent of respondents were doing business and 20 percent of respondents were coolie workers and 13 percent were doing business. Based on the monthly income 5 percent of the respondents were earning between Rs. 3001-5000 and 8 percent of respondents were earning above Rs. 5000 in the experimental group where as in control group 13 percent of respondents earning Rs. 1001-3000 and 13 percent of respondents were earning above Rs. 5000.

5.2. FINDINGS RELATED TO HEALTH HISTORY OF THE RESPONDENTS

In experimental group 75 percent of the respondents were in the normal body weight category and 20 percent of the respondents were obese, and where as in control group 70 percent of the respondents were in the normal body weight category and 25 percent of the respondents were obese. This findings goes in line with this study by Anderson (1999) reports that increased obesity between the age of 30-50 years is associated with significant increases in diastolic blood pressure. About 95 percent of the respondents from experimental group and 100 percent of the respondents from control group were not having the family history of hypertension. In this study people were not aware about the health problem was existed in their family

members. This findings goes in line with study findings of Manson(2000) reports that persons with family history of hypertension are more suspectible to developing hypertension.

In experimental group, about 73 percent of the respondents were taking antihypertensive drugs and 27 percent of respondents were not taking any antihypertensive drugs, where as in control group 67 percent of the respondents were taking antihypertensive drugs and 33 percent of the respondents were not taking any anti hypertensive drugs. About 18 percent of the respondents were smokers and 82 percent of respondents were nonsmokers in experimental group. And where as in control group 25 percent of the respondents were smokers and 75 percent of respondents were nonsmokers.

In experimental group 98 percent of respondents were non-alcoholics and 2 percent of respondents were alcoholics where as in control group 92 percent of respondents were non-alcoholics and 8 percent of respondents were alcoholics. Based on food habit 98 percent of the respondents were non-vegetarians and 2 percent of respondents were vegetarian in experimental group where as in control group 100 percent of respondents were non-vegetarians. Majority of the female respondents from experimental and control group did not have a history of taking oral contraceptives drugs that was 100 percent and 95 percent respectively. This findings goes in line with this study conducted by American Society of Hypertension on (2000) a result shows women who take the birth control pill are more susceptible to heart disease and high blood pressure.

5.3.1. Assessment on level of blood pressure between experimental and control group before guided imagery

Table.4.3. reveals, that 40 each hypertensive clients in experimental and control group were randomly assigned and level of blood pressure were assessed. The mean systolic blood pressure of experimental group was 147.2 mm Hg and control group was 144.7 mm Hg. The mean diastolic blood pressure of experimental group was 84.3 mm Hg and control group was 84.8 mm Hg. The 't' values of systolic blood pressure and diastolic blood pressure was 0.6499 and 0.1857 respectively. This reveals the 't' values are less than the table values. Hence, the hypothesis, H_1 **" There is no significant difference in the level of the blood pressure between experimental group and control group before guided imagery"** is accepted. Since, the two groups are found to be homogenous.

5.3.2. Assessment on level of blood pressure in the experimental group before and after guided imagery

Table 4.4.shows that the blood pressure was measured before and after intervention for the experimental group. The mean pretest systolic blood pressure was 147.2 mm Hg and it reduced to 125.1mmHg during post test. This shows average decrease of systolic pressure was 22.1. The mean pre test diastolic blood pressure was 84.3 mmHg and it was reduced to 77.25 mmHg during post test. This shows average decrease of diastolic blood pressure was 7.05. The calculated 't 'values was found to be systolic blood pressure and diastolic blood pressure was 24.53 and 21.14 respectively is greater than table value. Thus the hypothesis, H_2 **"There is a significant difference in the level of blood pressure in the experimental group**

before and after guided imagery" is accepted. This proved that the guided imagery had its role in reduction of blood pressure in the experimental group.

These findings are consistent with the finding of the study(Tang, 2008) on effect of guided imagery among older hypertensive clients. The intervention consisted of 12 sessions of a guided relaxation program. The study results reveal that there is a significant association in reducing blood pressure.

5.3.3. Assessment of level of blood pressure in the control group before and after guided imagery

Table4.5 reveals the mean pretest systolic blood pressure was 144.7 mmHg and reduced to 141.5 mmHg during post test. This shows average decrease systolic blood pressure of 3.2. The mean pretest diastolic blood pressure was 84.8 mmHg and it reduces to 82.9 mmHg during post test. This shows average decrease of diastolic blood pressure 1.9. This reveals there is reduction of blood pressure and. The calculated 't' value was found to be systolic blood pressure and diastolic blood pressure was 13.51 and 15.96 respectively greater than table value. Hence, the hypothesis H_3 **"There is no significant difference in the level of blood pressure in the control group before and after guided imagery"** is rejected.

5.3.4. Assessment of blood pressure of control group and experimental group after guided imagery

Table 4.6 shows that, the mean systolic blood pressure of control group was 141.5 mm Hg was greater than that experimental group mean systolic blood pressure was 125.1 mm Hg. The mean diastolic blood pressure of control group was 82.9 mm Hg was greater than the experimental group was 77.2 mm Hg. The calculated 't' value

was found to both the systolic and diastolic blood pressure was 4.46 and 2.06 respectively greater than table value. Hence, the hypothesis H_4 "**There is a significant difference in the level of blood pressure in the experimental and control group after guided imagery"** is accepted.

5.3.5. Relationship between selected demographic variables on level of blood pressure before guided imagery

Karl Pearson's co-efficient of correlation was calculated to find out the influence of selected demographic variables like age and body mass index on level of blood pressure before intervention.

The influence of age on blood pressure among hypertensive clients was assessed and was found to has less correlation with systolic blood pressure (r=0.1128) and negatively correlated with diastolic blood pressure(r=-0.3357). Similarly the body mass index for the systolic pressure(r=-0.0203) and diastolic blood pressure are (-0.0275)negatively correlated.

SUMMARY AND CONCLUSION

The study was conducted with the objectives to find out the effect of guided imagery on blood pressure among hypertensive clients. Administering guided imagery it helps the body to heal, maintain health and used in reducing stress. pain, and lowers blood pressure. Initially the survey was conducted to find out the hypertensive clients by using Digital sphygmomanometer in Idikarai rural community, Coimbatore.

The conceptual framework of this study was based upon J.W. Kenny's general system theory. An evaluate research approach has been used for the study. Review of literature brought at many facts about hypertension, risk factors, management, consequences and benefits of guided imagery. It also highlighted the effect of guided imagery on blood pressure.

. The study was conducted at Idikarai rural community of Coimbatore. A quasi experimental pretest post test control group design was adopted for the study. The total population is 7065. The study population was 86 and purposive sampling method was used to select the samples for the study.

The total number of samples selected during the study period was 80, 40 in experimental group and 40 in control group. Researcher collected the baseline data, health history and blood pressure was measured before the intervention. Experimental group received the guided imagery and control group did not received any intervention. After the intervention blood pressure was assessed. To know the effect, unpaired 't' test was used to compare the effect in experimental group and control

group. This study emphasized that guided imagery is every effective in reducing blood pressure.

6.1. MAJOR FINDINGS OF THE STUDY

1. The demographic variables reveals that a maximum number of respondents, 88 percent from experimental group and maximum of 63 percent clients from control group with hypertension were found in the age group of above 50 years.
2. It reveals that a maximum of 85percent of them from experimental group and 78 percent of them from control group were females.
3. It also reveals that 73 percent of them from experimental group and 67 percent of them from control group were taking antihypertensive drugs.
4. Comparison of blood pressure level of experimental group before and after guided imagery shows that average reduction of systolic blood pressure was 22.1 and diastolic blood pressure was 7.05 in experimental group. It is more than the control group. It shows the guided imagery is effective in reducing blood pressure among hypertensive clients.

6.2. LIMITATIONS

1. The study was limited only to hypertensive clients residing at the present study setting.
2. The study was confined to small number of participants for a shorter period.

6.3. RECOMMENDATIONS

1. The same study can be replicated on large samples.
2. The study can be conducted in different settings.

3. The similar study can be conducted in all stress related problems like depression and anxiety.
4. The similar study can be conducted in reducing side effects of chemotherapy among cancer patients.
5. Guided imagery can be used as one of the nursing intervention in treating hypertensive clients.

6.4. NURSING IMPLICATIONS

6.4.1. Nursing Education

Guided imagery helps to reduce blood pressure among hypertensive clients. It is an oldest folk method of healing used for centuries. It is an effective and safe form of therapy for hypertensive clients. Since it is a complementary and alternative therapies, it can be given much importance in nursing curriculum.

6.4.2. Nursing Administration

The nurse administrator can draw written policies regarding guided imagery on reduction of blood pressure among hypertensive clients. There by the staff nurses are kept in pace with the evidenced based practice.

6.4.3. Nursing practice

Guided imagery can promote the quality of life among hypertensive clients. Health education can be given regarding the technique and benefits of guided imagery. A separate room could be arranged for group therapy in hospital settings.

6.4.4. Nursing Research

The study has tested the effect of guided imagery on blood pressure among hypertension clients. More researches carried out in this area would be beneficial. The effects of guided imagery in reducing side effects of chemotherapy could be studied.

6.5. CONCLUSION

Hypertension has emerging major health problem in India and developing countries. Modern anti hypertensive drug therapy are available and used to reduce high blood pressure but there are certain drawbacks like increased side effects of drugs and irregular treatment and improper follow up. So guided imagery is one among the complementary alternative therapies is much effective in reducing blood pressure by natural healing process. Guided imagery in consideration with beneficial effects, absence of side effects and complications will prove the effectiveness in various conditions especially reducing pain, lowering stress and reducing the side effects of chemotherapy. It is cost effective, provides secondary beneficial effects to other systems of the body and optimizes the holistic health care to hypertensive clients. The research findings have proved that the administrating guided imagery among hypertensive clients has reduced the level of blood pressure.

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ANNEXURE - I

Paired 't' test

To test the hypothesis, 't' test was applied to findout the significant difference in blood pressure between pre and post test.

$$t = \frac{\bar{d}}{\frac{SD}{\sqrt{n}}}$$

$$SD = \sqrt{\frac{\sum \left(d - \bar{d}\right)^2}{n}}$$

$\bar{d}$ = Mean of difference between pretest and post test score

SD = Standard deviation of the pre-test and post test score

n = Number of samples

ANNEXURE - II

Unpaired 't' test

To test the hypothesis unpaired 't' test was applied to findout the significant difference blood pressure between experimental and control group.

$$t = \frac{\overline{X}_1 - \overline{X}_2}{S}\sqrt{\frac{n_1 n_2}{n_1 + n_2}}$$

$$S^2 = \frac{\sum\left(X_1 - \overline{X}_1\right)^2 + \sum\left(X_2 - \overline{X}_2\right)^2}{n_1 + n_2 - 2}$$

Where, $\overline{X}_1$ = mean of the first sample

$\overline{X}_2$ = mean of the second sample

n_1 = number of observation in the first sample

n_2 = number of observation in the second sample

S = Combined standard deviation

ANNEXURE – III

KARL PEARSON'S COEFFICIENT OF CORRELATION

This was calculated to find out the influence of independent variable on dependent variable. Influence of age, body mass index on blood pressure as assessed through Karl Pearson's Co-efficient of correlation in order to find the significance of relationship between the two variables.

$$r = \frac{\frac{\sum xy}{n} - \bar{x}\bar{y}}{SD_x . SD_y}$$

$\bar{x}$ = Mean of pretest

$\bar{y}$ = Mean of posttest

$\frac{\sum xy}{n}$ = Average of pretest and post test score

SD_x = Standard deviation of pre test score

SD_y = Standard deviation of post test score

APPENDIX – II

FORMAT FOR CONTENT VALIDITY

Name of the expert : Rm. Sivagami

Address : HOD / PROFESSOR.
KMCH COLLEGE OF NURSING.
COIMBATORE. - 14.

Total content for the tool : ✓ Adequate/ Inadequate

Kindly validate each tool and tick wherever applicable.

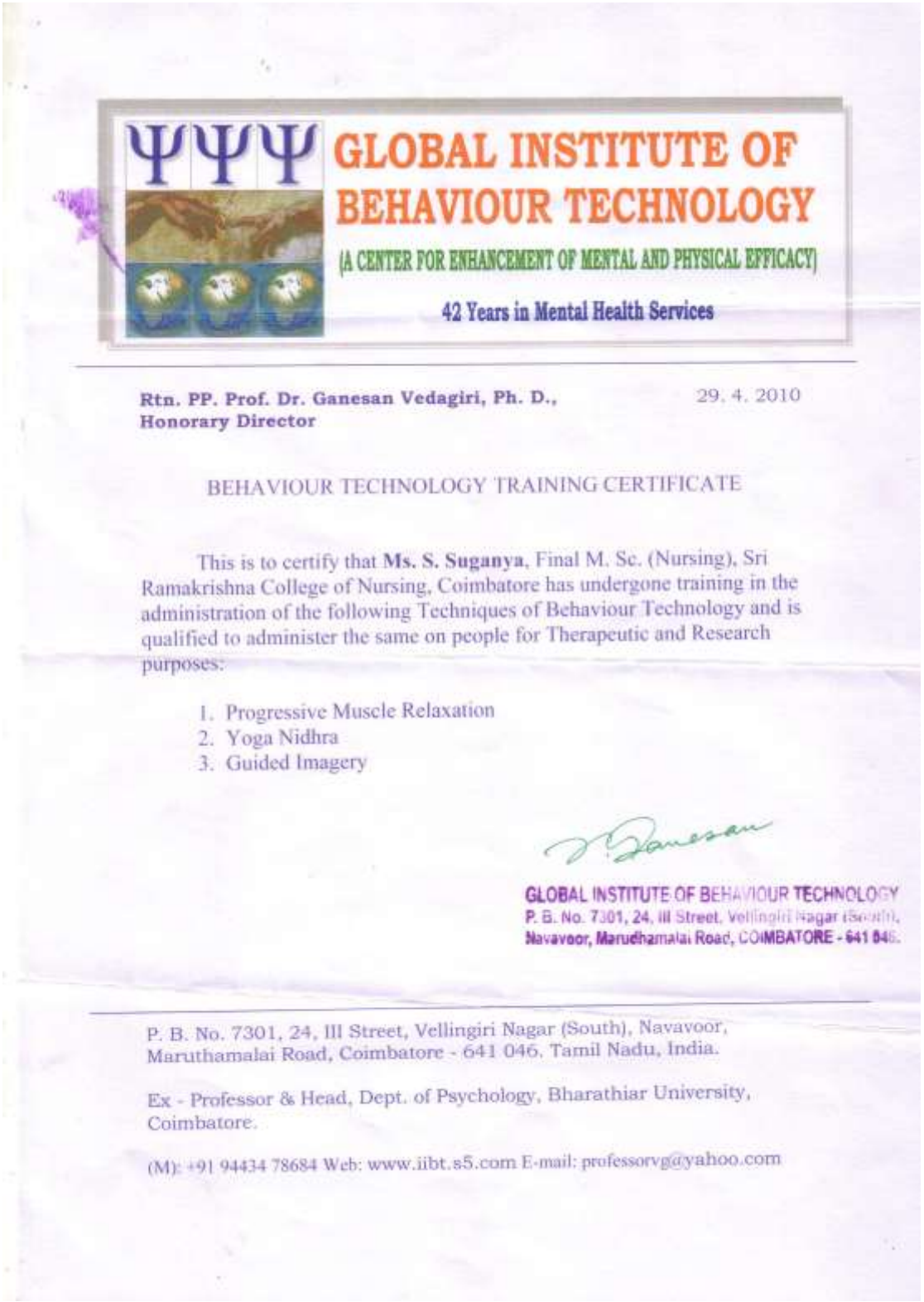
Sl. No.	No. of tool selection	Strongly agree	Agree	Need modification	Remarks
1.	Section – 1	—	✓	—	—
2.	Section – 2	✓			
3.	Section – 3	✓			
4.	Section – 4				
5.	Section – 5	✓			

Date: 11/05/10.

Rm. Sivagami
Signature of the Expert

Prof Sivagami Ramanathan
M.Sc. (Nursing)
HOD/Community Health Nursing
KMCH College of Nursing, Cbe-14

APPENDIX - III



GLOBAL INSTITUTE OF BEHAVIOUR TECHNOLOGY

(A CENTER FOR ENHANCEMENT OF MENTAL AND PHYSICAL EFFICACY)

42 Years in Mental Health Services

Rtn. PP. Prof. Dr. Ganesan Vedagiri, Ph. D.,
Honorary Director

29. 4. 2010

BEHAVIOUR TECHNOLOGY TRAINING CERTIFICATE

This is to certify that **Ms. S. Suganya**, Final M. Sc. (Nursing), Sri Ramakrishna College of Nursing, Coimbatore has undergone training in the administration of the following Techniques of Behaviour Technology and is qualified to administer the same on people for Therapeutic and Research purposes:

1. Progressive Muscle Relaxation
2. Yoga Nidhra
3. Guided Imagery

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GUIDED IMAGERY

An imaginary session can be conducted as a group session. The technique usually begins with a short relaxation exercise.

RELAXATION TECHNIQUE

1. Assume a passive and comfortable position.

2. Deep breathing-Exhale slowly, and tell all your muscles to relax, say as you exhale, ''I feel tension and energy flowing out of my body''.

Repeat the exercise 5-6 times & you will become more relaxed.

GUIDED IMAGERY SCRIPT

In this relaxed state, imagine mentally you are going out for a walk. Imagine you are slowly getting up. Stand firm on the ground feeling the hard ground surface underneath your feet; come out of the hall; reach the verandah; reach the staircase. Slowly get down step after the step, reach the ground floor. Sun is setting; it is cool.

You come out of the building. As you come out, there is a vast green lawn, You enter the lawn Barefoot feeling the soft cool grass under your feet, it is so soothing. You walk through a Lawn. You notice a few white rabbits move around freely. On both sides of the lawn, there are Rose plants with full of roses, fully blossomed, big and filled with fragrance. They are different colours, rose, purple, yellow, white, red. You are filling yourself with colours & fragrance.

You move further. There is a row of jasmine plants with mature buds; some have already blossomed. Pluck one, smell it, and feel the soft flower on your cheeks. You move further, on the way, you notice a squirrel. On seeing you, it gets to the top of the tree. You wonder at the marvelous capacity of the small animal.

You reach a river. You get into water. It is ankle deep. Water is clear. You are able to see your face in the water. You take the water in both of your hands and flash it on your face. It takes out all your strain and tiredness. You feel fresh. You are taking out a handkerchief from your pocket; wipe your face; and move. You reach the other side of the bank. There is a small rock. You sit on it. The sun has already set reaching the horizon. You could see golden yellow rays coming out of the clouds. You feel the cool breeze. The birds are returning to their nest. You observe the various patterns they make when they fly back to their nest. You listen to their sounds. You could also listens to the sounds of water flowing. You see the vast green paddy fields. It looks as a green carpet spread. You smell the wet paddy. You stay on the rock enjoying the nature's gift for a few minutes.

You slowly get down the rock, cross the river; getting your feet wet. The sand particles sticking to your feet fall off as you walk. You reach the lawn, then your building. You slowly climb up the stairs, reach the verandah, enter the hall and reach the place you were lying down and lie down. Slowly open your eyes at the count of five. No hurry. Take your own time. One, two, three, four, five. Slowly open the eyes.

APPENDIX - IV

SECTION-A

BASELINE DATA

1. Sample Number :

2. Address :

3. Age :

4. Gender :

5. Marital status :

6. Type of family :

7. Educational status :

8. Occupation :

9. Monthly income :

10. Working hours per day :

SECTION-B

HEALTH HISTORY

1. Height :

2. Weight :

3. Calculated body mass index :

4. Family history of hypertension :

   If yes, specify the relationship of the member

5. History of taking any antihypertensive medications :

   If yes, specify the drug, dose, duration

PERSONAL HABITS [Duration, frequency, amount]

6. Smoking :

7. Betal nut, tobacco /pan chewing :

8. Alcohol drinking :

9. Exercise :

10. Diet :

11. History of oral contraceptive drugs :

12. Leisure activities :

SECTION – C
BLOOD PRESSURE MONITORING CHART

Day	Blood pressure before guided imagery	Blood pressure after guided imagery

APPENDIX – V

LESSON PLAN ON GUIDED IMAGERY

LESSON PLAN ON GUIDED IMAGERY

Name of the student teacher	:	**Suganya.S**
Name of the college	:	College of Nursing, Sri Ramakrishna Institute of Paramedical Sciences
Name of the subject	:	Community Health Nursing
Topic	:	Guided Imagery
Method of Teaching	:	Lecture cum demonstration
Group	:	Hypertensive clients
Venue	:	Idikarai Rural Community, Coimbatore

GENERAL OBJECTIVE

Learners will gain adequate knowledge regarding guided imagery and develop a positive attitude towards it and practices in day to day life to improve the wellbeing.

SPECIFIC OBJECTIVES

On completion of this class the hypertensive clients will be able to

i. Meaning of guided imagery

ii. Definition of guided imagery

iii. List out the purposes of imagery

iv. Explain the steps of procedure of guided imagery

v. Enlist the benefits of guided imagery

S. No	Time	Specific Objective	Content	Teachers Activity	Learners Activity	AV Aids	Evaluation
	2 mts	The learner can be able to introduce Guided Imagery	**Introduction** Imagery is an important complementary health care modality one that can be used with just about any medical condition and in any health care setting. Imagery rituals were developed in hospital and clinic setting to enhance the effectiveness of medical treatment and nursing interventions.	Researcher introduces the topic by discussion	Listening	Pamphlet	What is Guided Imagery?
	3 mts	The learner can able to define Guided Imagery	**Definition** Imagery involves the use of the imagination for healing. Images involving all the senses, sight, sound, taste, smell and kinesthetic bodily sensation, can be directed to specific healing and life goals	Researcher defines the guided imagery	Listening	Pamphlet	Define Guided Imagery.
	3 mts	The learner can able to list out the purposes of Guided Imagery	**Purpose** **1.** Increase energy levels **2.** Promotes relaxing brain wave activity **3.** Enhances the sense of well being **4.** Ease stress and anxiety	Researcher list out the purposes of guided imagery	Listening	Pamphlet	List down the purposes of Guided Imagery.

S. No	Time	Specific Objective	Content	Teachers Activity	Learners Activity	AV Aids	Evaluation
	10 mts	Learners can able to explain steps of procedure of Guided Imagery	**Setting** The setting should be calm and quiet comfortable dim the lights and close the door to eliminate extraneous noise. **Procedure** 1. Guided imagery usually begins with a short relaxation exercise 2. Instruct the person to follow the instructions while practicing this relaxation technique 3. Take a few slow and deep breaths to centre the attention 4. Deeply exhale and feel all the muscles are getting in relaxed state and all the tension is following out of his body 5. Repeat the exercise 5 – 6 times and you will become relaxed 6. Ask the person to close the eyes to avoids distributions	Researcher explains the steps of procedure	Listening	Pamphlet	Explain the procedure of Guided Imagery.

S. No	Time	Specific Objective	Content	Teachers Activity	Learners Activity	AV Aids	Evaluation
			7. In this relaxed state the client should learn the audio tapped verbal instruction and imagining themselves in the scenarios as described in the script by using all of his sense. 8. In the script the persons should slowly come out the building. There is a vast green lawn, you entire the lawn with barefoot feeling the soft cool grass under your feet. It is soothy. 9. While walking through a lawn, you notice a white rabbits, there are rose plants with fully blossomed, row of jasmine plants with mature buds. 10. You reach a river, it's a clear water, take the water in both of your hands and flash it on your face. It takes out all your strain and tiredness. 11. You see the vast green paddy fields. You sit on the rock enjoying the nature's gift for a few mts. 12. After some time you slowly get down the rock and cross the river. 13. You reach the lawn, then your building and reach the place you are sitting down and sit down.				

S. No	Time	Specific Objective	Content	Teachers Activity	Learners Activity	AV Aids	Evaluation
			14. The script get finished in 20 mts. After that instruct them to slowly open the eyes at the count of 10 and re join in your world				
	2 mts	Learners can able to explain the course of treatment	**Course of treatment** The number of sessions varies greatly, from one to ten sessions in a therapeutic setting. It can be done for several times a day to several times a week.	Researcher explains about the course of treatment	Listening	Pamphlet	Explain the course of treatment.
	3 mts	Learners can able to enlist the benefits of Guided Imagery	**Benefits** **1.** Helps to lower psychological distress for cancer patients **2.** Decrease blood pressure **3.** Reduce chronic pain in people of all ages **4.** Helps with depression and various mood disorders **5.** Help treat heart disease, and arthritis.	Researcher enlists the benefits of guided imagery	Listening	Pamphlet	Enlist the benefits of Guided Imagery.

S. No	Time	Specific Objective	Content	Teachers Activity	Learners Activity	AV Aids	Evaluation
			SUMMARY Till now we have seen about the meaning, definition, purpose, procedures and benefits of guided imagery and how to practice it. **CONCLUSION** The body's natural relaxation response is a powerful antidote to stress. When practiced regularly the guided imagery lead to a reduction in your everyday stress levels and about in your feelings of joy and serenity. Guided imagery may act to boost the effectiveness of other treatments and also simply support them by its role as a relaxation tool.				

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http://www.guidedimageryinc.com

http://www.integratedmindcare.co.uk

http://wwwnatural-healing-health.com/mindbodyhealing

rpjwof;fggl;L kdj;jLkhw;wk;
c z;lhfhky;jLf;fyhk;

7. ,nj jsh;t[epiyapy;xyp ehlhtpy;tpthpf;fggLk; fhl;rpfisnfl;L c';fs; midj;J czh;t[fisa[k; clgLj;jpfhl;rpfis fwgid bra;Jghh;f;fntz;Lk;

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3. gpw;Wnehahy; ghjpf;fggl;lth;fspd;kd mGj;jj;ij Fiwf;fcjt[fpwJ.
4. ,janeha;kw;Wk;\l;L typapd; j';tpuj;ijf;Fiwf;fcjt[fpwJ.
5. ,JxUrpwej typepthuzpahf braygLfpwJ.

APPENDIX - VI

tHpfhlp fwgid kdjpjhw;wk;

Rfdpah/ R.

brtpypah;KJepiy
,uz;lhk;Mz;L/
brtpypah;fy;Y}hp/
,uhkfpU#;zh ,d;!pa{ol;
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nfhaKj;J}h;

tHpfhlp fwgid kdjpjhwpwk; Kd;Diu

,e;j tHpfhlp fwgid kdjpjhwpwk; kpftk; xU Mnuhf;fpakhd gapw;rp Kiw/ ,J neha;fspd;j‹tpuj;ij Fiwf;f cjtk; rpwe;j gapw;rp Kiwahf gadgLfpwJ. ,J xU ewgad;mspf;ff;Toa vspa rpfpr;ir KiwahFk;

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nehf;f';fs;

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2. kd mGj;jj;ij Fiwf;f cjtpfpwJ.
3. Mnuhf;fpakhd ey;thH;it kpFjpggLj;Jk;
4. kd ,Wf;fj;ijak/gaj;ijak; e‹f;FfpwJ.

gapw;rp brapak; NHepiy

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gapw;rp brapak; Kiw

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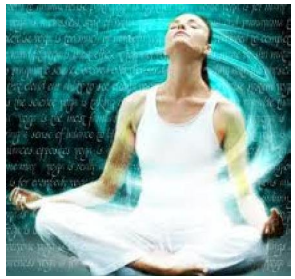

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APPENDIX – VII

CERTIFICATE OF ENGLISH EDITING

TO WHOMSOEVER IT MAY CONCERN

This is to certify that the dissertation, "**Effect of Guided Imagery on Blood Pressure among Clients with Hypertension in Selected Rural Community, Coimbatore.**" done by **Suganya. S** II year M.Sc Nursing, College of Nursing, Sri Ramakrishna Institute of Paramedical Sciences, Coimbatore, has been edited for English language appropriateness.

Name : Mrs Jessy Mathew, MAM, MPhil

Designation : Assistant Professor

Name of the Institution : Hindusthan College of Arts & Science.

Signature : Jessymathew

JESSY MATHEW, MAM,M.Phil.
Assistant Professor
Hindustan College
Coimbatore.

APPENDIX – VIII

CERTIFICATE OF TAMIL EDITING

TO WHOMSOEVER IT MAY CONCERN

This is to certify that the dissertation, "**Effect of Guided Imagery on Blood Pressure among Clients with Hypertension in Selected Rural Community, Coimbatore.**" done by **Suganya. S** II year M.Sc Nursing, College of Nursing, Sri Ramakrishna Institute of Paramedical Sciences, Coimbatore, has been edited for Tamil language appropriateness.

Name : R. Kala devi

Designation : Teacher (Tamil) M.A. B.Ed. (M.Phil)

Name of the Institution : Govt Hr. Sec School

Signature : R. Kalaivani

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PAPPANAICKENPALAYAM
COIMBATORE-641 037.

APPENDIX – IX

PHOTOS DURING INTERVENTION